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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/775,639	02/05/2001	Yoshimasa Ogawa	21.1999/CJG	8304

21171 7590 03/08/2007  
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1201 NEW YORK AVENUE, N.W.  
WASHINGTON, DC 20005

EXAMINER
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SELBY, GEVELL V

ART UNIT	PAPER NUMBER
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2622

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/08/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 09/775,639	<b>Applicant(s)</b> OGAWA, YOSHIMASA	
	<b>Examiner</b> Gevell Selby	<b>Art Unit</b> 2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 December 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4 and 8-12 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 18 and 20-26 is/are allowed.
- 6) ☒ Claim(s) 1-4 and 8-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                 | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                        | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/13/06 has been entered.

### ***Response to Arguments***

2. Applicant's arguments with respect to claims 1-4 and 8-12 have been considered but are moot in view of the new ground(s) of rejection.

3. Applicant's arguments, see the amendment, filed 12/13/06, with respect to claims 22 and 25 have been fully considered and are persuasive. The 35 U.S.C. 102(b) rejections of claims 22 and 25 have been withdrawn.

### ***Specification***

4. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**6. Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Ide et al., US 6,304,292.**

In regard to claim 1, Ide et al., US 6,304,292, discloses a solid-state imaging element, comprising:

a plurality of light-receiving sensors (see figure 20 and figure 21, element 112) converting optical signals to electrical signals, the plurality of light-receiving sensors arranged in  $v \times h$  (vertical x horizontal) matrix (see column 10, lines 32-43); and

a memory (see figure 21, elements 20a and 20b) storing the electrical signals as optical image data, said memory being formed of a plurality of line buffers, and the number of the plurality of line buffers arranged in the vertical direction is a value which is one than 1 and less than  $v$ , each of the plurality of line buffers stores  $h$  electrical signals (see column 10, lines 44-60: the horizontal transfer CCDs 20a and b read on the plurality of line buffers on the memory wherein the number of line buffers in the vertical direction is 2).

In regard to claim 2, Ide et al., US 6,304,292, discloses the solid-state imaging element of claim 1, further comprising:

a first switch circuit (see figure 21, element 18) connecting one of the line buffers and said light-receiving sensors (see column 4, lines 35-45).

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In regard to claim 3, Ide et al., US 6,304,292, discloses the solid-state imaging element of claim 2, wherein the data in the line buffers are output in parallel (see column 10, lines 53-60).

In regard to claim 4, Ide et al., US 6,304,292, discloses the solid-state imaging element of claim 1, further comprising:

a second switch circuit (see figure 21, element 22) selecting one of the line buffers to output the electrical signal (see column 4, lines 8-11 and column 10, lines 53-60).

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. **Claims 8-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ide et al., US 6,304,292, in view of Juen, US 5,818,524.**

In regard to claim 8, Ide et al., US 6,304,292, discloses an image processor, comprising:

a plurality of light-receiving sensors (see figure 20 and figure 21, element 112) converting optical signals to electrical signals, the plurality of light-receiving sensors arranged in v x h (vertical x horizontal) matrix (see column 10, lines 32-43); and

a memory (see figure 21, elements 20a and 20b) storing the electrical signals as optical image data, said memory being formed of a plurality of line buffers, and the number of the plurality of line buffers arranged in the vertical direction is a value which is one than 1 and less than  $v$ , each of the plurality of line buffers stores  $h$  electrical signals (see column 10, lines 44-60: the horizontal transfer CCDs 20a and b read on the plurality of line buffers on the memory wherein the number of line buffers in the vertical direction is 2).

The Ide reference does not disclose an encoder encoding the electrical signals in units of  $n \cdot \text{times} \cdot m$  pixels.

Juen, US 5,818,524, discloses a digital still image camera with an irreversible encoder that codes image data before saving onto a recording medium (see figure 2, element 28 and column 4, lines 5-20).

It would have been obvious to one of ordinary skill in the art at the time of invention to have been motivated to modify Ide et al., US 6,304,292, in view of Juen, US 5,818,524, to have an encoder encoding the electrical signals in units of  $n \cdot \text{times} \cdot m$  pixels, in order to compress image data output from the image sensor so that more data may be stored on a recording medium.

In regard to claim 9, Ide et al., US 6,304,292, in view of Juen, US 5,818,524, discloses the solid-state imaging element of claim 8, further comprising:

a first switch circuit (see figure 21, element 18) connecting one of the line buffers and said light-receiving sensors (see column 4, lines 35-45).

In regard to claim 10, Ide et al., US 6,304,292, in view of Juen, US 5,818,524, discloses the solid-state imaging element of claim 9, wherein the data in the line buffers are output in parallel (see column 10, lines 53-60).

In regard to claim 11, Ide et al., US 6,304,292, in view of Juen, US 5,818,524, discloses the solid-state imaging element of claim 8, further comprising:

a second switch circuit (see figure 21, element 22) selecting one of the line buffers to output the electrical signal (see column 4, lines 8-11 and column 10, lines 53-60).

In regard to claim 12, Ide et al., US 6,304,292, in view of Juen, US 5,818,524, discloses the image processor of claim 8, wherein said encoder is a JPEG encoder (see Juen: column 4, lines 13-15).

***Allowable Subject Matter***

9. Claims 18 and 20-26 are allowed.

10. The following is a statement of reasons for the indication of allowable subject matter:

Claims 18, 20, 21, 23, 24, and 26 are allowable for the reason stated in the previous office action.

In regard to claims 22 and 25, the prior art does not disclose the combination of limitations disclosed in the claimed invention, specifically the limitations of:

a plurality of k line buffers, each line buffer holding up to m pixels of image data, and the number of the plurality of line buffers arranged in the vertical direction is a value

which is more than 1 and less than  $v$ , each of the plurality of line buffers stores  $h$  electrical signals,

wherein blocks of  $n \times m$  pixels of image data are transferred from the array of photosensors to the line buffers, such that a first one of the buffers receives  $m$  pixels from a horizontal line and outputs the  $m$  pixels before receiving another  $m$  pixels from the next horizontal line and so forth until a first block of  $n \times m$  pixels has been transferred and output, and repeating the transfer and output operations for each remaining line buffer and the remaining image data, as stated in claims 22 and 25.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gevell Selby whose telephone number is 571-272-7369. The examiner can normally be reached on 8:00 A.M. - 5:30 PM (every other Friday off).

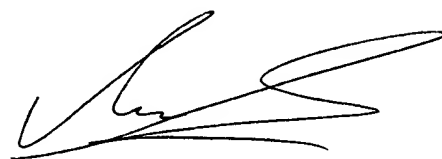
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivek Srivastava can be reached on 571-272-7304. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

gvs



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